

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021332**Date Inspected:** 03-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai**CWI Name:** Tian Lei, Liu Fa Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector R. Hernandez was present during the time noted above and conducted observations relative to the work being performed.

The QA Inspector randomly observed the following work in progress:

Bay Number 1

FCAW welding of complete joint penetration welds located on traveler rail component identified as 20TR2-036 weld no.(s) 017 & 20TR2-037 weld no.(s) 017. Welder is identified as welder no. 217185. The welding variables recorded by ZPMC QC identified as Tian Lei appeared to comply with applicable WPS(s) WPS-B-T-2131-ESAB.

FCAW welding of complete joint penetration welds located on traveler rail component identified as 20TR2-036 weld no.(s) 015 & 013, 20TR2-038 weld no.(s) 013. Welder is identified as welder no. 053609. The welding variables recorded by ZPMC QC identified as Tian Lei appeared to comply with applicable WPS(s) WPS-B-T-2131-ESAB.

FCAW welding of complete joint penetration welds located on traveler rail component identified as 20TR2-036 weld no.(s) 009 & 20TR2-038 weld no.(s) 009. Welder is identified as welder no. 204342. The welding variables recorded by ZPMC QC identified as Tian Lei appeared to comply with applicable WPS(s) WPS-B-T-2131-ESAB.

This inspector observed ZPMC QC personnel conducting MT testing and inspection on the following traveler rail

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

components identified as 9TR2-001 & 9TR2-002.

Bay Number 3

This inspector observed ZPMC QC personnel performing fit-up and bevel edge preparation of the following piece numbers for the component identified as SA8009 (Architectural Housing Shroud) piece no.(s) SP31208, SP3122A, & SP3121A, SP3122C per welding detail WD371T & WD371S per joint detail CJP (TC-U4b-GF) a 45 degree angle.

Bay Number 8

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. All components were as listed on NWIT notification no. 08435 & 08439 The member(s) is/are identified as OBG Bike Path identified as noted below with the following weld no.(s):

1. BK004A8-060-023, 024, 035, 036.
2. BK004A6-060-023, 024, 035, 036.
3. BK004A4-060-008, 009, 023, 024, 034, 035, 049, 050, 060, 061, 075, 076.
4. BK004A3-060-017, 018, 034, 035, 041, 042, 060, 061.
5. BK004A6-063-001, 002, 007, 165.
6. BK004A8-063-001, 002, 007, 130.

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Bike Path BK004A4-060 this Quality Assurance Inspector (QA) discovered the following issues:

- One (1) Longitudinal crack measuring approximately 25mm in length.
- The weld is identified as: BK004A4-060-061.
- The weld is a Fillet Weld type joining the top plate (BKPL7A) to stringer plate (BKX9A) to doubler plate (BKX10C).
- The Bike Path BK004A4-060 is located in Bay 8 center north side.

The NDT Inspection Notification Sheet is Document No. 08439. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform twenty five (25%) percent MT inspection of this weld.

FCAW welding of complete joint penetration welds located on Tower Skirt component identified as WDSH-012 weld no.(s) 001, 002, & 003. Welder is identified as welder no. 054459. The welding variables recorded by ZPMC QC identified as Liu Fa Wen appeared to comply with applicable WPS(s) WPS-B-T-2231-ESAB.

Unless otherwise noted above all items observed on this day appeared to be in general compliance with the applicable contract documents

Summary of Conversations:

Pertinent conversations are included in the body of the report.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 1500-0042-02372, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Rene
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Quality Assurance Inspector

Reviewed By:	Hall,Steven
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QA Reviewer
